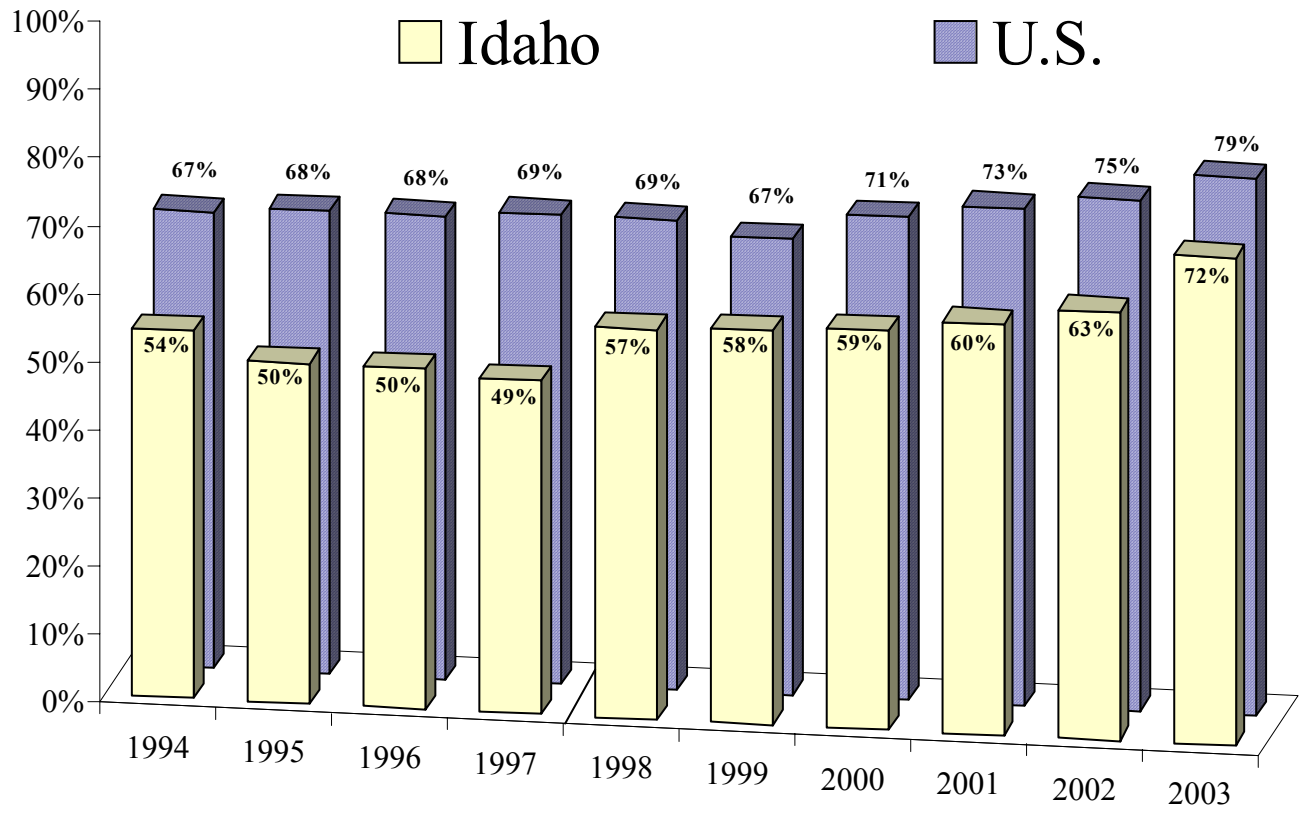
Safety Restraint Usage

Idaho's seat belt use law, effective July 1, 1986, requires seat belt use for front seat passengers and drivers, regardless of residency, in vehicles with a gross vehicle weight of 8,000 pounds or less that were manufactured with safety belts. The law is a "secondary" law and can only be enforced when someone is stopped for another traffic violation. Idaho's child restraint law is a primary enforcement law. The law was updated July 1, 2003. It now covers all seating positions and has enhanced penalties for drivers less than 18 years of age. Drivers and occupants, 18 years of age and older, receive separate tickets.

Figure 13 depicts observed seat belt use by year for both Idaho and the U.S. The figures are the observed rates for persons in passenger cars, pickups, sport utility vehicles, and vans, which make up 91% of the vehicles involved in motor vehicle crashes. The U.S. usage rate comes from the National Occupant Protection Use Survey (NOPUS) and the mini NOPUS, which are done alternately every year.

Figure 13
Observed Seat Belt Usage – Idaho vs. U.S.: 1994 - 2003



The methodology for the observational seat belt survey was changed in 1998 in accordance with the National Highway Traffic Safety Administration (NHTSA) guidelines. Comparisons of 1998 and future surveys to historical data (1986 – 1997 surveys) should be made with caution as the new methodology differs greatly from the previous methodology. Likewise, the methodology for the National survey differs from that of Idaho and does not include any observation sites in Idaho.

Observational Seat Belt Survey Results

Table 26 shows the observed shoulder harness seat belt use by county.

Table 26
Observed Seat Belt Use by County: 1999-2003

	1999	2000	2001	2002	2003	Change 2002-2003	Avg. Change 1999-2002
Ada	65.8%	63.8%	66.8%	64.3%	81.0%	26.0%	-0.7%
Bannock	48.7%	49.5%	56.0%	58.5%	55.7%	-4.7%	6.4%
Bingham	39.7%	39.6%	51.8%	45.2%	47.4%	4.8%	5.9%
Blaine	48.9%	38.9%	52.3%	60.0%	68.7%	14.4%	9.6%
Bonner	48.4%	57.2%	54.4%	70.9%	74.4%	4.9%	14.6%
Bonneville	58.8%	56.6%	63.4%	62.5%	59.4%	-5.0%	2.3%
Canyon	62.9%	58.3%	58.3%	63.2%	75.1%	18.9%	0.3%
Cassia	38.7%	40.5%	49.1%	49.6%	53.9%	8.8%	9.0%
Elmore	47.3%	55.0%	57.7%	52.9%	67.9%	28.5%	4.3%
Kootenai	53.4%	64.6%	59.5%	70.2%	78.6%	12.0%	10.4%
Latah	60.5%	61.5%	57.6%	74.0%	74.2%	0.2%	7.9%
Madison	41.6%	45.1%	49.7%	52.4%	58.8%	12.3%	8.0%
Minidoka	35.6%	44.3%	48.1%	48.5%	55.6%	14.7%	11.3%
Nez Perce	57.0%	52.3%	56.2%	65.4%	74.4%	13.8%	5.2%
Payette	66.6%	59.6%	63.3%	61.2%	71.9%	17.4%	-2.5%
Twin Falls	46.4%	52.6%	54.4%	58.9%	63.0%	6.9%	8.3%
Statewide	**57.9%**	**58.6%**	**60.4%**	**62.9%**	**71.7%**	**14.1%**	**2.8%**

The Office of Highway Safety evaluates compliance rates through analysis of collision data and statewide observational surveys of seat belt use. Observational surveys are conducted by observing shoulder harness use or non-use. The observational survey is a representative sample of the State and does not include all counties.

Table 27 shows the observed seat belt use for the Idaho Transportation Department (ITD) districts[4] by vehicle type. District 3 (south-western Idaho) had the highest overall usage at 79%, while district 5 (south-eastern Idaho) had the overall lowest usage at 54%.

Table 27
Idaho Safety Belt Observation Survey: 2003 – Usage by Vehicle Type

ITD District	Passenger Cars	Vans and Sport Utility Vehicles	Pickup Trucks	All Vehicles
1	83.0%	79.7%	64.3%	76.5%
2	82.2%	79.4%	60.5%	74.3%
3	81.8%	81.6%	69.4%	78.8%
4	63.1%	65.6%	48.5%	59.3%
5	57.5%	64.7%	36.9%	53.5%
6	67.7%	66.9%	37.0%	59.2%
Statewide	**77.0%**	**76.2%**	**58.4%**	**71.7%**

Usage rates for the occupants of pickup trucks continue to be significantly lower than usage rates for other types of passenger vehicles. The usage rate for pickup truck occupants in 2003 ranged from a high of 69.4% in District 3 (south-western Idaho) to a low of 36.9% in District 5 (south-eastern Idaho).

Seat belt usage varied by the type of roadway the vehicles were traveling on. It ranged from a high of 86.2% on rural interstates to a low of 48.8% on rural minor collectors. While there was virtually no difference between urban and rural sites, there was a difference of 6 percentage points between major and minor roads. The difference was not statistically significant. Major roads were defined as interstates and principal arterials. Minor roads were comprised of the rest of the roadway functional classifications.

Self-Reported Seat Belt Usage Results

Table 28 shows the self-reported seat belt use for people, ages 4 and older, in passenger cars, pickups, sport utility vehicles, and vans that were killed or seriously injured. Research has indicated there is a tendency for persons involved in collisions to falsely report compliance with the seat belt law and thus, self-reported use tends to overstate actual use[5]. Seat belt use by severely or fatally injured occupants can be more directly assessed by law enforcement officers or emergency medical personnel, and is therefore, more reliable.

Table 28
Self-Reported Seat Belt Use : 1999-2003
(Age 4 and older in Passenger Cars, Pickups, Sport Utility Vehicles, and Vans)

Injury Type	1999	2000	2001	2002	2003	Change 2002-2003	Avg. Change 1999-2002
Fatalities -Restraints Used	22.8%	28.7%	29.7%	37.5%	37.2%	-0.8%	18.5%
Serious Injuries -Restraint Used	50.0%	49.7%	51.0%	57.6%	58.4%	1.4%	5.0%

Of the 239 motor vehicle occupants killed in 2003, only 89 were using seat belts. The National Highway Traffic Safety Administration estimates seat belts are 50% effective in preventing fatalities and serious injuries. By this estimate, we can deduce that 89 lives were saved in 2003 by seat belt usage. An additional 75 lives could have been saved if everyone had buckled up.

Costs of Injuries

Table 29 illustrates the costs of injuries sustained by occupants, ages four and older, of passenger vehicles for persons both using and not using safety restraints.

Table 29
2003 Costs of Injuries
Persons Using Safety Restraints versus Persons Not Using Safety Restraints

	Safety Restraints		Costs of Injuries	
Injury Type	Used	Not Used	Used	Not Used
Fatality	89	150	$278,539,116	$469,447,948
Serious Injury	764	545	$165,534,569	$118,084,215
Visible Injury	3,146	1,114	$136,327,684	$48,273,694
Possible Injury	6,170	1,301	$141,111,238	$29,754,574
Total			**$721,512,607**	**$665,560,430**

Child Safety Seat – Self-Reported Usage

Table 30 shows self-reported child safety seat use for children, under age 4, in passenger cars, pickups, sport utility vehicles, and vans from 1999 to 2003. Overall, the use rate has increased from 78% in 1999 to 86% in 2003. Idaho Code requires every child, under the age of four, and weighing less than 40 pounds be restrained in a car safety seat that meets the federal standards when traveling in a non-commercial motor vehicle manufactured with seat belts after January 1, 1966.

Table 30
Self-Reported Child Safety Seat Use by Injury Type: 1999-2003
(under age 4 in passenger cars, pickups, sport utility vehicles and vans)

Injury Type	1999	2000	2001	2002	2003	Change 2002-2003	Avg. Change 1999-2002
Fatalities							
Restrained	4	1	0	1	3	200.0%	-25.0%
Unrestrained	1	0	3	2	2	0.0%	22.2%
Serious Injuries							
Restrained	3	9	4	7	11	57.1%	73.1%
Unrestrained	9	7	5	6	2	-66.7%	-10.3%
Visible Injuries							
Restrained	51	32	37	37	29	-21.6%	-7.2%
Unrestrained	35	20	24	18	14	-22.2%	-16.0%
Possible Injuries							
Restrained	73	85	103	128	155	21.1%	20.6%
Unrestrained	34	29	31	29	42	44.8%	-4.8%
No Injuries							
Restrained	1,262	1,414	1,367	1,481	1,645	11.1%	5.7%
Unrestrained	317	285	247	225	228	1.3%	-10.8%
Total Restrained	1,396	1,553	1,525	1,654	1,843	11.4%	6.0%
Total Unrestrained	397	348	318	280	296	5.7%	-11.0%
% of Children Restrained	77.9%	81.7%	82.7%	85.5%	86.2%	0.7%	3.2%

The National Highway Traffic Safety Administration estimates child safety seats are 69% effective in preventing fatalities and serious injuries. By this estimate we can deduce that child safety seats could have saved 1 of the 2 unrestrained children killed in 2003. Additionally, 1 of the 2 unrestrained serious injuries may have been prevented if they had all been properly restrained.

Local Safety Restraint Usage

Table 31 presents self-reported restraint use rates for all motor vehicle occupants over the age of 4 involved in fatal and serious injury collisions for each county, comparing 1999 through 2003. Collision data provides an analysis of the restraint use at the local level. This information is self-reported to the investigating officer after a collision. The self-reported use is for all occupants, regardless of injury type, involved in fatal and serious injury crashes.

Table 31
Self-Reported Restraint Use in Fatal and Serious Injury Crashes by County: 1999-2003
(persons in passenger cars, pickups, sport utility vehicles and vans only)

County by Population	1999	2000	2001	2002	2003	Change 2002-2003	Avg. Change 1999-2002
50,000 and over							
Ada	66.7%	70.4%	70.3%	77.0%	75.5%	-1.9%	5.0%
Bannock	54.2%	57.6%	62.3%	55.6%	72.1%	29.5%	1.3%
Bonneville	52.3%	61.5%	59.2%	63.8%	68.5%	7.4%	7.2%
Canyon	59.7%	60.7%	69.4%	62.2%	69.5%	11.8%	1.9%
Kootenai	69.2%	63.7%	73.9%	77.9%	82.8%	6.3%	4.5%
Twin Falls	50.5%	59.3%	56.9%	81.0%	61.6%	-23.9%	18.5%
20,000 - 49,999							
Bingham	47.3%	32.2%	52.2%	55.1%	61.0%	10.7%	11.9%
Blaine	62.3%	48.4%	83.3%	48.7%	60.5%	24.3%	2.7%
Bonner	59.0%	54.4%	45.1%	62.6%	80.7%	28.9%	4.7%
Cassia	36.3%	53.6%	53.3%	51.0%	37.7%	-26.1%	14.3%
Elmore	59.5%	60.2%	64.4%	66.7%	57.4%	-13.9%	3.9%
Latah	68.2%	57.4%	54.6%	65.2%	69.8%	7.0%	-0.4%
Madison	34.6%	54.6%	33.3%	65.6%	62.5%	-4.8%	38.5%
Nez Perce	59.2%	60.2%	57.4%	80.7%	68.0%	-15.8%	12.6%
Payette	68.2%	59.1%	52.9%	58.2%	67.4%	15.8%	-4.6%
10,000 - 19,999							
Boundary	64.3%	50.0%	55.2%	73.9%	50.0%	-32.4%	7.4%
Franklin	47.2%	30.0%	50.0%	23.3%	56.3%	141.1%	-7.7%
Fremont	46.9%	50.7%	40.6%	57.6%	55.9%	-3.0%	10.0%
Gem	42.4%	34.6%	43.5%	58.3%	71.4%	22.5%	13.8%
Gooding	29.2%	55.7%	38.8%	55.8%	51.0%	-8.7%	34.8%
Idaho	28.8%	61.2%	52.4%	63.4%	43.8%	-31.0%	39.7%
Jefferson	41.3%	59.5%	44.4%	57.1%	59.1%	3.4%	15.8%
Jerome	54.4%	58.8%	48.8%	55.5%	66.7%	20.2%	1.6%
Minidoka	30.9%	42.9%	34.9%	48.3%	62.5%	29.5%	19.5%
Owyhee	38.1%	65.0%	26.7%	46.3%	23.5%	-49.2%	28.5%
Shoshone	48.6%	51.2%	50.0%	59.1%	47.4%	-19.8%	7.1%

Table 31 (Continued)
Self-Reported Restraint Use in Fatal and Serious Injury Crashes by County: 1999-2003
(persons in passenger cars, pickups, sport utility vehicles and vans only)

County by Population	1999	2000	2001	2002	2003	Change 2002-2003	Avg. Change 1999-2002
5,000 - 9,999							
Bear Lake	72.4%	16.0%	57.1%	66.7%	29.4%	-55.9%	65.3%
Benewah	42.9%	18.8%	40.0%	43.2%	60.0%	39.0%	21.7%
Boise	65.2%	65.9%	72.7%	64.0%	64.1%	0.2%	-0.2%
Caribou	48.0%	66.7%	52.2%	47.5%	21.4%	-54.9%	2.7%
Clearwater	35.7%	21.4%	37.5%	81.8%	44.4%	-45.7%	51.1%
Lemhi	31.8%	15.2%	46.7%	60.5%	53.3%	-11.9%	61.8%
Power	36.7%	31.0%	42.3%	48.0%	65.0%	35.4%	11.4%
Teton	38.9%	37.5%	35.7%	45.5%	81.8%	80.0%	6.3%
Valley	45.5%	41.7%	51.9%	71.4%	62.9%	-12.0%	18.0%
Washington	44.8%	38.5%	54.6%	71.4%	96.2%	34.6%	19.5%
0 - 4,999							
Adams	46.7%	11.1%	33.3%	92.3%	58.3%	-36.8%	100.3%
Butte	20.0%	28.6%	33.3%	88.9%	71.4%	-19.6%	75.4%
Camas	75.0%	33.3%	81.8%	100.0%	50.0%	-50.0%	37.4%
Clark	60.0%	69.2%	75.0%	36.4%	60.0%	65.0%	-9.3%
Custer	50.0%	20.0%	55.0%	45.0%	37.5%	-16.7%	32.3%
Lewis	11.8%	42.3%	80.8%	90.0%	57.1%	-36.5%	120.7%
Lincoln	30.8%	66.7%	18.2%	42.1%	36.4%	-13.7%	58.5%
Oneida	51.6%	60.7%	64.3%	45.5%	64.0%	40.8%	-1.9%
Statewide Average	**55.9%**	**58.3%**	**60.7%**	**65.7%**	**67.6%**	**3.0%**	**5.5%**